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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,454	04/12/2004	Erez Haba	MSFTP641US	2824
27195 7590 01/11/2008 AMIN. TUROCY & CALVIN, LLP 24TH FLOOR, NATIONAL CITY CENTER 1900 EAST NINTH STREET CLEVELAND, OH 44114			EXAMINER WANG, BEN C	
			ART UNIT 2192	PAPER NUMBER
			NOTIFICATION DATE 01/11/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket1@thepatentattorneys.com
hholmes@thepatentattorneys.com
osteuball@thepatentattorneys.com

Interview Summary	Application No.	Applicant(s)	
	10/822,454	HABA ET AL.	
	Examiner	Art Unit	
	Ben C. Wang	2192	

All participants (applicant, applicant's representative, PTO personnel):

(1) Nilesh S. Amin. (3) _____

(2) Ben C. Wang. (4) _____

Date of Interview: 08 August 2007.

Type: a) ☒ Telephonic b) ☐ Video Conference
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.
If Yes, brief description: _____

Claim(s) discussed: 1, 17, and 23.

Identification of prior art discussed: _____

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: See Continuation Sheet.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Eric B. Kiss

ERIC B. KISS
PRIMARY EXAMINER

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

Examiner's signature, if required

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments:

Parties went through revised specifications, drawings, and claims

The applicant agreed upon adding "relationships between versions of source code under test components and versions of test components" term to all of independent claims.

The examiner will reconsider the case upon receiving further amendment response.

AMIN, TUROCY & CALVIN, LLP

FACSIMILE

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MANY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. IF THE READER OF THIS MESSAGE IS NOT THE INTENDED RECIPIENT OR THE EMPLOYEE OR AGENT RESPONSIBLE FOR DELIVERING THE MESSAGE TO THE INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT ANY DISSEMINATION, DISTRIBUTION OR COPYING OF THIS COMMUNICATION IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS COMMUNICATION IN ERROR, PLEASE NOTIFY US IMMEDIATELY, AND RETURN THE ORIGINAL MESSAGE TO US AT THE ADDRESS LISTED BELOW VIA UNITED STATES MAIL. THANK YOU.

Date: 7/31/07

TO: Examiner Wang

FACSIMILE NO.: 571-270-2240

FROM: Nilesh S. Amin
AMIN, TUROCY & CALVIN, LLP
24th Floor, National City Center
1900 East 9th Street
Cleveland, Ohio 44114

Telephone: (216) 696-8730
Facsimile: (216) 696-8731

No. of Pages Including Cover 2

RE: Application Serial No. 10/822,454
Filed: April 12, 2004

Dear Examiner Wang,

As discussed in our telephone conversation on Tuesday, 7/31, I am faxing you an interview request form for application number 10/822,454. I would like to set up a time this week or early next week(I will not be available Thursday and Friday of next week) that is convenient for you to discuss this case. Please call me at 310-428-4640, at your earliest convenience to let me know when you are available to discuss this case.

Regards,

Nilesh Amin
Reg. No. 58,407

ATTACHMENT TO INTERVIEW SUMMARY 8/8/2007

PTOL-413A (08-07)
Approved for use through 06/30/2007. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Applicant Initiated Interview Request Form

Application No.: 10/822,454 First Named Applicant: Erez Haba
Examiner: Ben C. Wang Art Unit: 2192 Status of Application: Pending Non-Final

Tentative Participants:

(1) Nilesh S. Amin, Reg No. 58407 (2) _____

(3) _____ (4) _____

Proposed Date of Interview: Between 8/1-8/8 when Examiner is available Anytime after
Proposed Time: 11am ET (AM/PM)

Type of Interview Requested:

(1) ☒ Telephonic (2) ☐ Personal (3) ☐ Video Conference

Exhibit To Be Shown or Demonstrated: ☐ YES ☒ NO

If yes, provide brief description: _____

Issues To Be Discussed

Issues (Rej., Obj., etc)	Claims/ Fig. #s	Prior Art	Discussed	Agreed	Not Agreed
(1) <u>Specification Objection</u>	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(2) <u>Claim rejections 35 USC 103</u>	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(3) <u>Drawing Objection</u>	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(4) _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Continuation Sheet Attached					

Brief Description of Arguments to be Presented:

Applicant's representative would like clarify understanding of Examiner's interpretation of the prior art w/respect to claims.

Applicant's representative would like to present claim amendments and associated arguments that are believed

to overcome the objections and rejections. A Draft version of a Reply can be faxed to Examiner prior to the interview.

An interview was conducted on the above-identified application on _____.

NOTE: This form should be completed by applicant and submitted to the examiner in advance of the interview (see MPEP § 713.01).

This application will not be delayed from issue because of applicant's failure to submit a written record of this interview. Therefore, applicant is advised to file a statement of the substance of this interview (37 CFR 1.133(b)) as soon as possible.

Nilesh S. Amin

Applicant/Applicant's Representative Signature

Examiner/SPE Signature

Nilesh S. Amin

Typed/Printed Name of Applicant or Representative

58407

Registration Number, if applicable

This collection of information is required by 37 CFR 1.133. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

AMIN, TUROCY & CALVIN, LLP

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THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MANY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. IF THE READER OF THIS MESSAGE IS NOT THE INTENDED RECIPIENT OR THE EMPLOYEE OR AGENT RESPONSIBLE FOR DELIVERING THE MESSAGE TO THE INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT ANY DISSEMINATION, DISTRIBUTION OR COPYING OF THIS COMMUNICATION IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS COMMUNICATION IN ERROR, PLEASE NOTIFY US IMMEDIATELY, AND RETURN THE ORIGINAL MESSAGE TO US AT THE ADDRESS LISTED BELOW VIA UNITED STATES MAIL. THANK YOU.

Date: 7/31/07

TO: Examiner Wang

FACSIMILE NO.: 571-270-2240

FROM: Nilesh S. Amin
AMIN, TUROCY & CALVIN, LLP
24th Floor, National City Center
1900 East 9th Street
Cleveland, Ohio 44114

Telephone: (216) 696-8730
Facsimile: (216) 696-8731

No. of Pages Including Cover 19

RE: Application Serial No. 10/822,454
Filed: April 12, 2004

Dear Examiner Wang,

I am faxing a draft version of my Reply to your Office Action issued on May 15, 2007 for application number 10/822,454 that we can use as a basis for our discussion. I will call you at 571-270-1240 on Wednesday, 8/8 at 4pm ET.

Regards,

Nilesh Amin
Reg. No. 58,407

DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT**PATENT****MS307670.01/MSFTP641US****CERTIFICATE OF TRANSMISSION**

I hereby certify that this correspondence (along with any paper referred to as being attached or enclosed) is being submitted via the USPTO EFS Filing System on the date shown below to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Date: _____

/Jessica Sexton/
Jessica Sexton**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re patent application of:

Applicant(s): Erez Haba, *et al.*

Examiner: Ben C. Wang

Serial No: 10/822,454

Art Unit: 2192

Filing Date: April 12, 2004

Title: VERSION AWARE TEST MANAGEMENT SYSTEM AND METHOD

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

DRAFT REPLY TO OFFICE ACTION DATED MAY 15, 2007

Dear Sir:

Favorable reconsideration of the above-identified patent application is respectfully requested in view of the amendments and comments below.

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AMENDMENTS TO THE SPECIFICATION**In the Specification:**

Please replace the paragraph beginning on page 2 line 3 starting with "Conventionally, there are" with the following amended paragraph:

Conventionally, there are two divergent approaches to persistence in software test management. Test management data can be stored in a relational database, optimized for querying and reporting. For example, Mercury TestDirector® and IBM Rational TestManager® utilize this approach. However, this creates a problem in that the database reflects a snapshot in time and as a consequence tests and source cannot be kept in sync unless all development assets are backed up (baselined) at once, which is typically only done sparingly (e.g., product ships, beta releases...). This has been the favored approach for managing testing activities in teams. An alternative approach is to store tests as source code with granular version control consistent with the source code. For instance, open source frameworks NUnit® (for .Net™) and JUnit® (for Java®) utilized this approach. This allows tests and source under test to be synchronized but prevents the querying and reporting that are necessary for managing a testing effort across a team of any size. Accordingly, this approach has been used for testing performed by individual programmers on their own code, but not employed for team activity.

Please replace the paragraph beginning on page 5 line 22 starting with "Turning initially to Fig. 1" with the following amended paragraph:

Turning initially to Fig. 1, a test management system 100 is illustrated in accordance with an aspect of the present invention. Test management system 100 comprises software under test (SUT) component 110, test case component 120, version component 130, and test case file component 140. The test management system 100, at least in part, provides a system or subsystem that facilitates coherent interaction between and amongst developers and testers over a

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software lifecycle. Accordingly, it should be appreciated that although not shown developers and testers may interact with various test management system components to view data and/or effectuate changes. SUT component 110 includes and refers to a software application that has been developed or is in the process of being developed by one or more developers. A developer can be a person that authors product source code. Furthermore, it is to be appreciated that SUT can also refer to System Under Test as the software in fact defines a unique computing machine or system. Test case component 120 corresponds to a formal description of an individual test perhaps including but not limited to test script(s), test input/stimulus, and test conditions needed for execution of the test. The test management system 100 also includes a version component 130. Version component 130 monitors both the SUT component 110 and the test case component 120 for changes. For example, component 130 can detect a version change in the source code under test. This can, *inter alia*, help ensure the elimination of many false positive results that may otherwise occur during testing if it was not so noted that the source under test had changed, for instance.

Please replace the paragraph beginning on page 6 line 26 starting with "Turning to Fig. 2a" with the following amended paragraph:

Turning to Fig. 2a, a test catalog 210 is illustrated in accordance with an aspect of the subject invention. The test catalog 210 provides a repository for a collection of test case files 140, test cases 120, test variations 220, and test suites 230, *inter alia*. The test catalog ~~design~~ 210 provides a data store layout which is simple, extensible, and scalable as well as enabling, as users can manage a central store and/or their own local store using familiar concepts. The test catalog store 210 can be based on simple file storage, extended to create a hierarchical store. In particular, the test catalog 210 can be constructed from the aggregation of individual files (e.g., TCX files), which relate to each other in a hierarchical fashion. A single file, such as a TCX file (also referred to herein as test case file), is the standard unit for a simple test catalog. The TCX file is a complete store for namespace metadata, test case, and test suite metadata, as well as their namespace relations.

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Please replace the paragraph beginning on page 7 line 20 starting with "Returning to Fig. 2a" with the following amended paragraph:

Returning to Fig. 2a, it should be appreciated that test catalog 210 can be specified in the form of a high performance database (e.g., SQL serverTM) or as a text file (e.g., XML catalog for revision control). According to an aspect of the subject invention a user can create a test catalog, save changes to a test catalog, as well as import or export the test catalog or a subset thereof (e.g., to an XML file- TCX file).

Please replace the paragraph beginning on page 7 line 25 starting with "As shown in Fig. 2a" with the following amended paragraph:

As shown in Fig. 2a, exemplary test catalog 210 comprises a plurality of test case components 120 (Test Case Component1, Test Case Component 2 through Test Case ComponentN, where N is an integer greater than or equal to one). Test cases 120 can be formal definitions of individual tests including but not limited to test script(s), test input/stimulus, and test conditions necessary for the execution of the described test. A test author can create and customize tests cases 120 in a multitude of different manners. For example, a tester can create a test case entry and specify its hierarchy in the test catalog 210. In addition, the test case type can be specified (e.g., manual, automatic, unit, load, functional...). It should also be appreciated that once the test case is specified it can later be edited or copied. For instance, a hierarchy sub-tree can be copied to another location in the hierarchy, test cases can be associated with requirements, test binaries, or a test project. Test variations 220 can also be included in the test catalog. Test variations 220 refer to a test artifact representing a test case with partially specialized parameter binding. Test variations 220 can be generated manually or automatically, for instance with a test rig. A test rig as used herein refers to hardware and/or software utilized to host a text execution. Finally, test catalog component 210 can also comprise one or more test suite components 230.

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Test suite[[s]] component 230 can be collection of test components (e.g., multiple test cases, hierarchy of test cases...).

Please replace the paragraph beginning on page 8 line 12 starting with "To facilitate a clear" with the following amended paragraph:

To facilitate a clear understanding of the interaction between particular test components Fig. 3 has been provided. Fig. 3 is a schematic block diagram 300 illustrating the key data component relationships in accordance with an aspect of the subject invention. Source under test [[([)]SUT[D]] component 110 represents the computer system source code. The SUT component 110 implements such functionality on a computer system, which provides particular features feature(s) 320. Furthermore, such feature(s) 320 can be implemented by way of a work item 330. In other words work items 330 are implemented by features of the SUT component 110. Test case component 120 provides tests including but not limited to scripts and input/simulation data to examine or test the SUT component 110. The SUT component 110, the feature(s) 320 and the test case component 120 all represent versioned data. Stated somewhat differently, each component can and often does change. During the development process code represented by SUT component 110 is continuously modified such that new features are added and/or removed. Furthermore, test case components 120 need to change to test the changes in the source under test 110. Test case component 120 generates test results 350. Test results 350 cover or correspond to the results of the test as executed on the current version of SUT component 110. Version component 130 monitors and records changes to the SUT component 110. Build drop component 370 comprises the executable version of the software under test. The build drop component 370 includes a changed data from the version component. Accordingly, the test results, the version component 130 changes, and the build drop are all version tagged data, meaning that they are all dependent on the version of the software under test.

Please replace the paragraph beginning on page 90 line 3 starting with "Fig. 4 depicts" with the following amended paragraph:

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Fig. 4 depicts a storage system 400 in accordance with an aspect of the subject invention. Workspace 410 defines a boundary for isolation between transacted changes and version control. Application 412 provides instructions for executing tasks 414 on work items or data 416. Application 412 comprises a plurality of sections and tests integrated therein to facilitate synchronization. Version component 130 provides for source code version control. In essence, version component 130 monitors and tracks changes to the application 412 including tests residing therein. Test catalog 210 includes, inter alia, test cases, each test case having properties and file associations (e.g., paths). The test catalog 210 can be based on simple file storage, extended to create a hierarchical store. In particular, the test catalog 210 can be constructed from the aggregation of individual files such as XML files (also referred to herein as TCX (Test Case XML) files). A development team can share a centralized test catalog 210, which can be a database executing SQL server, for instance. Alternatively, individual members can have their own local test catalog 210, if desired. The test catalog 420 can be loaded with tests and other data from application 412. It should be appreciated that persistence in a TCX file in the test catalog 210 allows versioning consistent with a source as well as version-aware reference to a source under test. Application 412 can also be published to drop folder(s) 422 to provide a single reference point for testing. Additionally, test catalog 420 [[416]] can interact with drop folder(s) 422 to archive and reload source code and test cases thereby supporting reversion. Text information from test catalog 210 [[420]] and application source code residing in drop folder(s) 422 can be provided to a test execution component 424, which executes specified tests on the application source code. Subsequently, the test execution component 424 can provide test results 350. The test results 350 are then tagged and saved to XML files 428 which can thereafter be published to the enterprise data store 430. Furthermore, test catalog data 210 and test results 350 can be published directly to the enterprise data store 430 as version tagged data for historical and trend analysis. Additionally, the enterprise data store 420 can store drop folder data, source code, and work items.

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Please replace the paragraph beginning on page 10 line 17 starting with "To facilitate a clear" with the following amended paragraph:

Fig. 5 depicts a method of test management 500 in accordance with an aspect of the subject invention. At 510, metadata is retrieved regarding test version information relating to a source or software under test. In other words, what is received is data defining current relationships between tests and source code under test such that it can be determined whether a test tests [[a]] the current version of code or an old version of the code, and how the test results relate to the present code under test. Thus, if a test relates to a particular code version then results generated by the test on subsequent source code versions may not be comparable because of the changes thereto. Furthermore, it should be appreciated that at least a portion of the metadata regarding versions can come from a version component or conventional source code control system. Still further yet it should be appreciated that according to an aspect of the present invention such version metadata can be employed in daily builds and testing. At 520, the metadata is persisted to a mark up language file such as XML, which provides a mechanism for defining or marking up data. At 530, test result data is version tagged to enable expeditious review of results with respect to the source code tested and the tests thereon. Storage of information in the manner described provides for explicitly specifying test source code relationships as well as easy data queries, for example via XSLT transformations.

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AMENDMENTS TO THE DRAWINGS

The attached sheet of drawings contains corrections to Figure 2a to meet formal drawing specifications. This sheet replaces the original sheet including Figure 2a. In Figure 2a, element 220 has been amended as "TEST VARIATIONS COMPONENT".

Attachments: 1 Replacement Sheet

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1. (Currently Amended) An application test management system comprising:
a version component that monitors source under test components and test components for changes; and
a test case file component that includes ~~versioning~~ metadata associated with test ~~components ease~~ and source under test components received from the version component that indicates relationships between versions of source under test components and versions of test components, the test case file component includes and attributes necessary for query and test management.
2. (Original) The system of claim 1, wherein the test case file component includes a pointer to the source under test.
3. (Original) The system of claim 1, wherein the test case file component includes a pointer to requirement for test data.
4. (Original) The system of claim 1, wherein the test case file component includes a pointer to requirement and/or configuration under test data.
5. (Original) The system of claim 1, wherein the test case file component includes a pointer to a test case component.

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6. (Original) The system of claim 1, wherein the test case file component is loaded into memory or treated as a database to facilitate management operations including at least one of query, reporting, suite composition and scheduling.
7. (Original) The system of claim 1, wherein the test case file component is an XML document.
8. (Previously Presented) The system of claim 7, wherein XSLT is employed to facilitate management operations including at least one of selection, query, reporting, suit composition, and scheduling.
9. (Original) The system of claim 1, wherein the test case file component is located in the source file under test.
10. (Original) The system of claim 9, wherein the test case file component is loaded into a test catalog.
11. (Original) The system of claim 8, wherein the test case component specified in the test case file component is loaded into the test catalog.
12. (Original) The system of claim 11, wherein a test execution component executes the test case on the software under test and generates test results.
13. (Original) The system of claim 12, wherein the test results are tagged with the test case component and source under test component versions for historical and/or trend analysis.
14. (Original) A test management system comprising:
a means for maintaining fine-grained track of a test's relation to a version of software under test; and

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a means for querying test data to facilitate generation of test management reports.

15. (Original) The system of claim 14, wherein the means for maintaining fine-grained track of a test's relation to a version of software under test includes persisting software version information and related test information to an XML file.

16. (Original) The system of claim 15, wherein the XML file is transformed utilizing XSLT to enable test data to be queried.

17. (Currently Amended) A test management methodology comprising:
retrieving metadata regarding test version information in relation to software under test
version information; and
persisting the metadata to a markup language file versioned with test assets and source code.

18 (Currently Amended) The method of claim 17, wherein version information is retrieved from a version component that monitors changes to source code versions and test versions.

19. (Original) The method of claim 17, wherein the file is an XML file.

20. (Original) The method of claim 19, wherein the file comprises a pointer to at least one of a source under test, requirement under test, and configuration under test.

21. (Original) The method of claim 19, further comprising transforming the XML file utilizing XSLT to enable management operations to be performed on the data including at least one of selection, query, reporting, suit composition, and scheduling.

22. (Original) A computer readable medium having stored thereon computer executable instructions for carrying out the method of claim 17.

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23. (Currently Amended) A testing methodology comprising:
loading a test case in accordance with a test case file stored in a source file;
executing the test case on a source under test; and
generating test results, wherein the test results are version tagged to indicate the relationship between test results, test case version, and source under test version.
24. (Original) The method of claim 23, further comprising saving test results to an XML file.
25. (Original) The method of claim 23, further comprising publishing the test results to an enterprise data store.
26. (Original) The method of claim 23, wherein the version tags indicate the version of the source under test and the version of the test.
27. (Original) A computer readable medium having stored thereon computer executable instructions for carrying out the method of claim 23.

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REMARKS

Claims 1-27 are currently pending in the subject application and are presently under consideration. Claims 1, 17, 18, and 23 have been amended as shown at pages 9-12 of the Reply. In addition, the specification has been amended as indicated at pages 2-7. Figure 2a has been amended as indicated at page 8.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Objection to Drawings

The drawings are objected to because of the following informalities: "TEST VERSION COMPONET", cited in Fig. 2a, element 220, should be corrected as "TEST VARIATIONS COMPONET". The drawings have been amended to correct this informality. As such, this objection should be withdrawn.

II. Objection to Specification

The specification is objected to for various informalities. The specification has been amended to correct all informalities that were identified. Accordingly, this objection should be withdrawn.

III. Rejection of Claims 1-11 and 14-22 Under 35 U.S.C. §102(e)

Claims 1-11 and 14-22 stand rejected under 35 U.S.C. §102(e) as being anticipated by Mandava, *et al.* (US 7,210,066 B2) hereinafter "Mandava-1". It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Mandava-1 does not teach each and every element of the subject invention as recited in the subject claims.

A single prior art reference anticipates a patent claim only if it expressly or inherently describes each and every limitation set forth in the patent claim. *Trintec Industries, Inc., v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 U.S.P.Q.2D 1597 (Fed. Cir. 2002); *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). The identical invention

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must be shown in as complete detail as is contained in the ... claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The subject claims relate to maintaining fine grained information regarding test versions and their relationship to versions of source code in such a way as to allow for robust management reporting. In particular, independent claim 1 (and similarly independent claim 14, 17) recites *a test case file component that includes metadata associated with test components and source under test components received from the version component that indicates relationships between versions of source under test components and versions of test components, the test case file component includes attributes necessary for query and test management.*

Mandava-1 does not teach or suggest the aforementioned novel features as recited in the subject claims. The cited reference discloses a system for identifying test coverage. The system provides a mechanism for associating a test case with a feature from a specification. Using these associations, a user can determine which features are covered by which tests, thereby allowing them to determine how well the features are covered by tests. However, Mandava-1 is silent regarding source code being tested and particularly does not mention versions of source code or versions of tests. The cited reference merely mentions version of specification which is not the equivalent. For a single version of a specification, there can and likely will be many versions of source code attempting to implement the features of the specification. Therefore, Mandava-1 fails to teach or suggest a test case file component that includes metadata associated with test components and source under test components received from the version component that indicates relationships between versions of source under test components and versions of test components.

In view of the foregoing, applicants' representative respectfully submits that Mandava-1 fails to teach or suggest all limitations of independent claims 1, 14, and 17 (and claims 2-11, 15, 15, and 18-22 that depend there from), and thus fails to anticipate the subject claims. Accordingly, withdrawal of this rejection is respectfully requested.

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IV. Rejection of Claims 23-27 Under 35 U.S.C. §102(e)

Claims 23-27 stand rejected under 35 U.S.C. §102(e) as being anticipated by Mandava, et al. (US 7,203,928 B2) hereinafter "Mandava-2". It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Mandava-2 does not teach each and every element of the subject invention as recited in the subject claims.

Independent claim 23 recites *loading a test case in accordance with a test case file stored in a source file; executing the test case on a source under test; and generating test results, wherein the test results are version tagged to indicate the relationship between test results, test case version, and source under test version*. The subject claim discloses providing information that indicates the relationship between a test result and the version of a test case and version of source under test. the Mandava-2 does not teach or suggest the aforementioned novel features as recited in the subject claims. The cited reference discloses a method for providing standardized reporting of test results. The system employs codes that testers can associate expected results and rationale for the results. This allows different testers to understand the test that was created and what is expected when the test is executed. However, Mandava-2 is silent regarding versions of a test case and version of source code being tested. Therefore, Mandava-2 fails to teach or suggest generating test results, wherein the test results are version tagged to indicate the relationship between test results, test case version, and source under test version.

In view of the foregoing, applicants' representative respectfully submits that Mandava-2 fails to teach or suggest all limitations of independent claim 23 (and claims 24-27 that depend there from), and thus fails to anticipate the subject claims. Accordingly, withdrawal of this rejection is respectfully requested.

V. Rejection of Claims 12-13 Under 35 U.S.C. §103(a)

Claims 12-13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Mandava-1 in view of Mandava-2. It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Mandava-1 and Mandava-2, alone or in combination, do not teach each and every element of applicant's invention as recited in the subject claims.

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To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §706.02(j). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. See *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Claim 12-13 depends from independent claim 1. As noted *supra*, Mandava-1 and Mandava-2 do not teach or suggest test version or source under test version. Therefore, Mandava-1 and Mandava-2 fail to teach or suggest a test case file component that includes metadata associated with test components and source under test components received from the version component that indicates relationships between versions of source under test components and versions of test components..

In view of at least the foregoing, applicant's representative respectfully submits that Mandava-1 and Mandava-2, alone or in combination fail to teach or suggest all limitations of applicant's invention as recited in independent claim 1 (and claims 12 and 13 that respectfully depend there from), and thus fails to make obvious the subject claimed invention. Accordingly, withdrawal of this rejection is respectfully requested.

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CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP641US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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DRAFT REPLACEMENT SHEET

Title: VERSION AWARE TEST MANAGEMENT SYSTEM AND METHOD
Inventors(s): Erez Haba, et al.
Serial No. 10/822,454
Docket No. MS307670.01/MSFTP641US

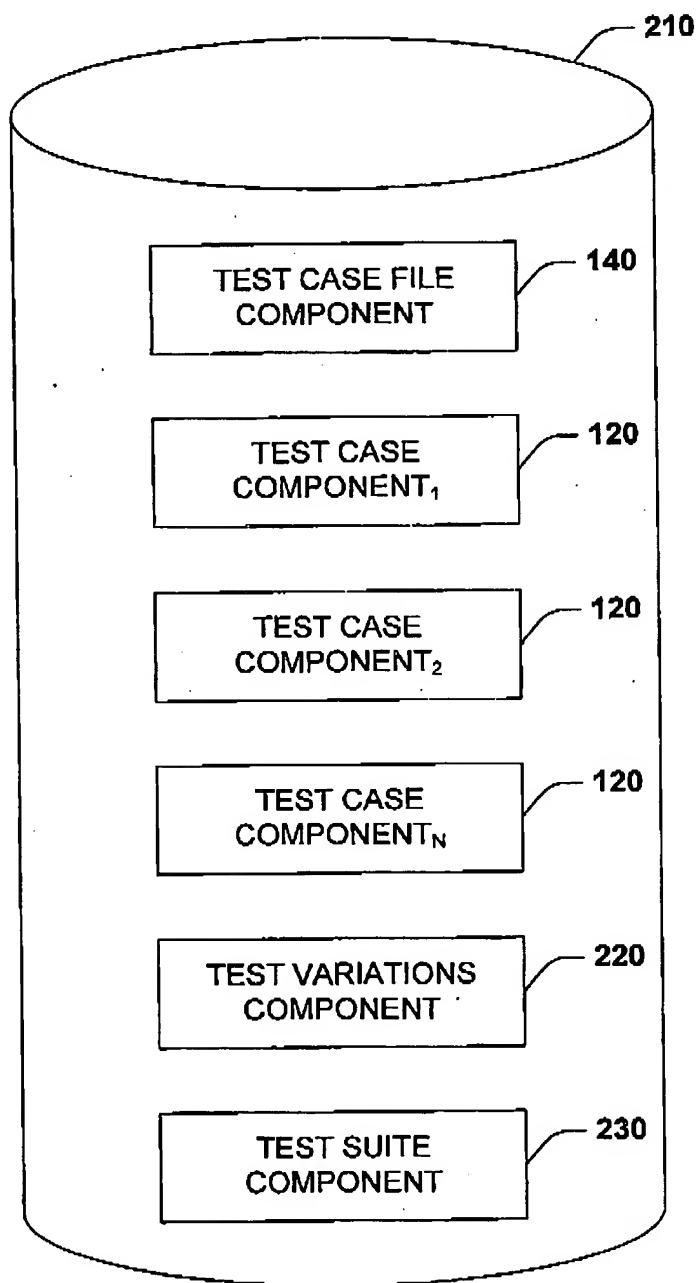


Fig. 2a